

LISTING OF CLAIMS:

1-10. (Canceled)

11. (Currently amended) A method of manufacturing an emulsion of water and fuel using a series of batch processing steps comprising:

- (a) charging a fuel and an additive into a mixing tank;
- (b) agitating the fuel and the additive charged into the mixing tank;
- (c) charging water into the mixing tank and forming a mixture solution of the fuel, additive and water, while agitating the mixture solution;
- (d) reducing cluster sizes of the fuel and water in the mixture solution by pumping the mixture solution through a processing means and returning the mixture solution into the mixing tank;
- (e) separating the mixture solution in the mixing tank and forming a water rich portion of the mixture solution at a bottom portion of a mixing tank; and
- (f) emulsifying the mixture solution from the bottom portion of the mixing tank at first through the processing means and returning the mixture solution to the mixing tank, thereby forming the emulsion of water and fuel.

~~The method of manufacturing the emulsion of water and fuel according to claim 4,~~
wherein the processing means includes at least one plate having holes therein, and in steps (d) and (f) the mixture solution passes through the holes in the at least one plate.

12. (Previously presented) The method of manufacturing the emulsion of water and fuel according to claim 11, wherein the holes have a diameter of about 0.5 mm to 1 mm.

13. (Currently amended) A method of manufacturing an emulsion of water and fuel using a series of batch processing steps comprising:

(a) charging a fuel and an additive into a mixing tank containing the emulsion of water and fuel having a first volume;

(b) agitating the emulsion of water and fuel having a first volume together with the fuel and additive and forming a first mixture solution;

(c) charging water into the mixing tank and forming a second mixture solution; and

(d) emulsifying the second mixture solution by pumping the second mixture solution from the mixing tank through a processing means, which reduces clusters of liquid molecules in the mixture solution into smaller clusters, and returning the resulting emulsion of water and fuel having a second volume larger than the first volume to the mixing tank.

~~The method of manufacturing the emulsion of water and fuel according to claim 7,~~
wherein the processing means includes at least one plate having holes therein, and in step (d) the mixture solution passes through the holes in the at least one plate.

14. (Previously presented) The method of manufacturing the emulsion of water and fuel according to claim 13, wherein the holes have a diameter of about 0.5 mm to 1 mm.

15. (Currently amended) A method of manufacturing an emulsion of water and fuel using a series of batch processing steps comprising:

(a) charging a fuel and an additive into a mixing tank;

(b) agitating the fuel and the additive charged into the mixing tank and forming a mixed solution of the fuel and additive;

(c) charging and mixing water into the mixing tank and forming a first mixture solution of the fuel, additive and water;

(d) reducing clusters of liquid molecules in the first mixture solution into smaller clusters by pumping the first mixture solution through a processing means and returning to the mixing tank, thereby forming a second mixture solution of the fuel, additive and water;

(e) separating the second mixture solution in the mixing tank and forming a water rich portion in the second mixture solution at a bottom portion of a mixing tank; and

(f) emulsifying the separated second mixture solution from the bottom portion of the mixing tank at first through the processing means, thereby forming the emulsion of water and fuel.

The method of manufacturing the emulsion of water and fuel according to claim 8, wherein the processing means includes at least one plate having holes therein, in step (d) the first mixture solution passes through the holes in the at least one plate, and in step (f) the second mixture solution passes through the holes in the at least one plate.

16. (Previously presented) The method of manufacturing the emulsion of water and fuel according to claim 15, wherein the holes have a diameter of about 0.5 mm to 1 mm.